

Integration of Lessons Learned with ISMS Program at SRS

- Organization & History
- SRS Lessons Learned Network
- ISMS Tie In & Performance
- User Ownership - Just in Time/WEB Search

Presented at the SELLS Workshop

Las Vegas, 3/15-3/17/99

Larry Peyser, Acting Site Lessons Learned Coordinator

WSRC President
(Ambrose L. Schwallie)

ESH&QA Vice President
(Fran B. Williams)

Quality Assurance and Integrated Standards
Management Department
(Joe Yanek)

Performance Evaluation and Quality
Programs Section
(Louis McCarty)

Lessons Learned
(Larry Peyser - Acting through 3/21/99 - Steve Etheridge - After 3/21/99)

Site INPO Contact
- nuc network
- documents
- liaison

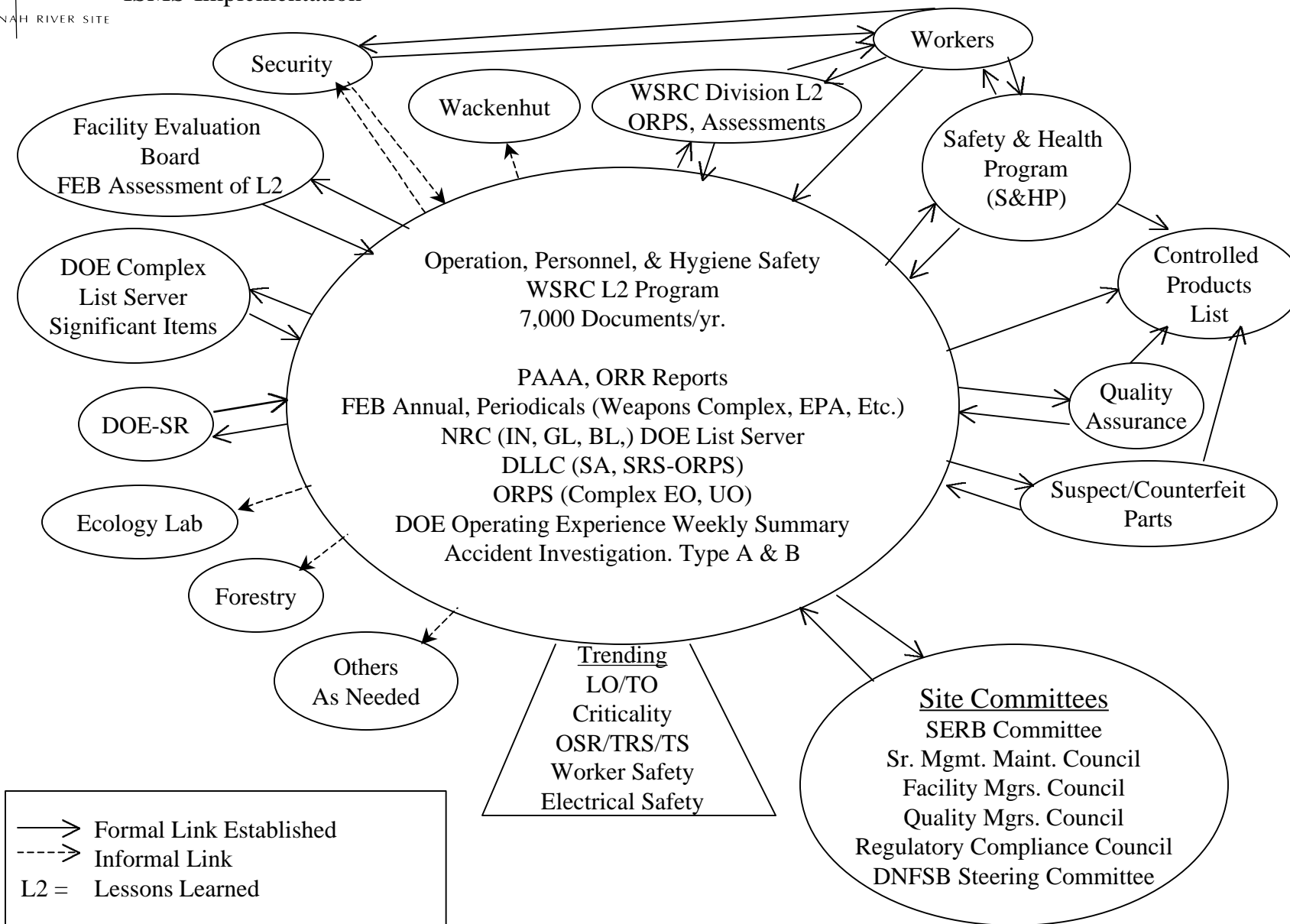
Site Lessons Learned Program
- screen, distribute lessons
learned

External ES&H
Review Liaison

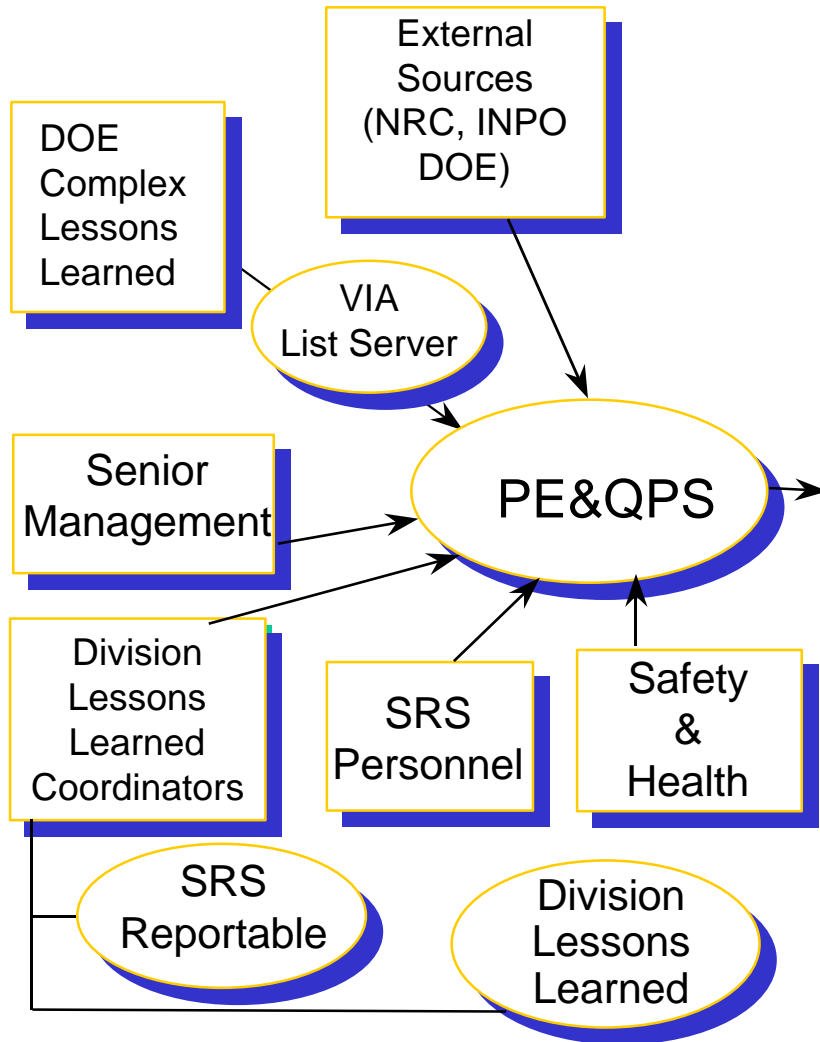
Background

- 1 Nuclear Utilities Implemented Operating Experience Review Groups - Screen, Evaluate “Lessons” of Others (TMI Recommendation)
- 1 Industry Style Lessons Learned Program Required For K-Reactor Startup (1991)
- 1 Site Lessons Learned Established By MP 4.19 (5/92)
- 1 ESH&QA Program Improvement Effort Merged With ITP Type B Investigation - Restructure, Strengthen
- 1 WSRC President Directed Senior Staff to Support Major LL Program Changes (2/93)
- 1 MP 4.19 Revised 8/97, MRP 4.14 Revised 2/98 Establishes
 - Site Level Coordinator
 - Site Lessons Learned Group
 - Matrixes Division Coordinators to Site Level Coordinator
 - Corrective Action Tracking
 - Senior Management Responsibilities

SRS LESSONS LEARNED NETWORK



Transmittals From The Sitewide Lessons Learned Program



Transmittals #Year Distribution Action

| | | | |
|----------------------------------|------------|---------------------------|-----------------------------------|
| 1) Directive | <3 | VPs + Coordinators | Response, PE&QPS Tracks |
| 2) Bulletin | < 10 | Coordinators + 1500 | Response, Div Coord. Tracks |
| 3) Notification | 20 | Coordinators | Response, Div Coord. Tracks |
| 4) Special INFO Notice | < 6 | Coordinators | No Response Required |
| 5) Digest | 12 | Coordinators + 1500 | No Response Required |
| 6) Newsletter | 26 | Coordinators + 700 | No Response Required |
| 7) SRS Op Exp. Weekly Summary | 50 +220 | Sr. Mgmt | Info Only |



ISMS Implementation

Safety Management Functions

Direction

Define Scope of Work

- Translate Mission into Work
- Set Expectations
- Prioritize Tasks and Allocate Resources

Feedback/Improvement

- Collect Feedback Information
- Identify Improvement Opportunities
- Make Changes to Improve
- Oversight & Enforcement

Perform Work

- Confirm Readiness
- Perform Work Safely

Work

Do
Work
Safely

- Line Management Responsibility
- Clear Roles & Responsibilities
- Competence per Responsibilities
- Balanced Priorities
- Id. Safety Stds. & Requirements
- Tailored Hazard Control
- Operations Authorization

Analyze Hazards

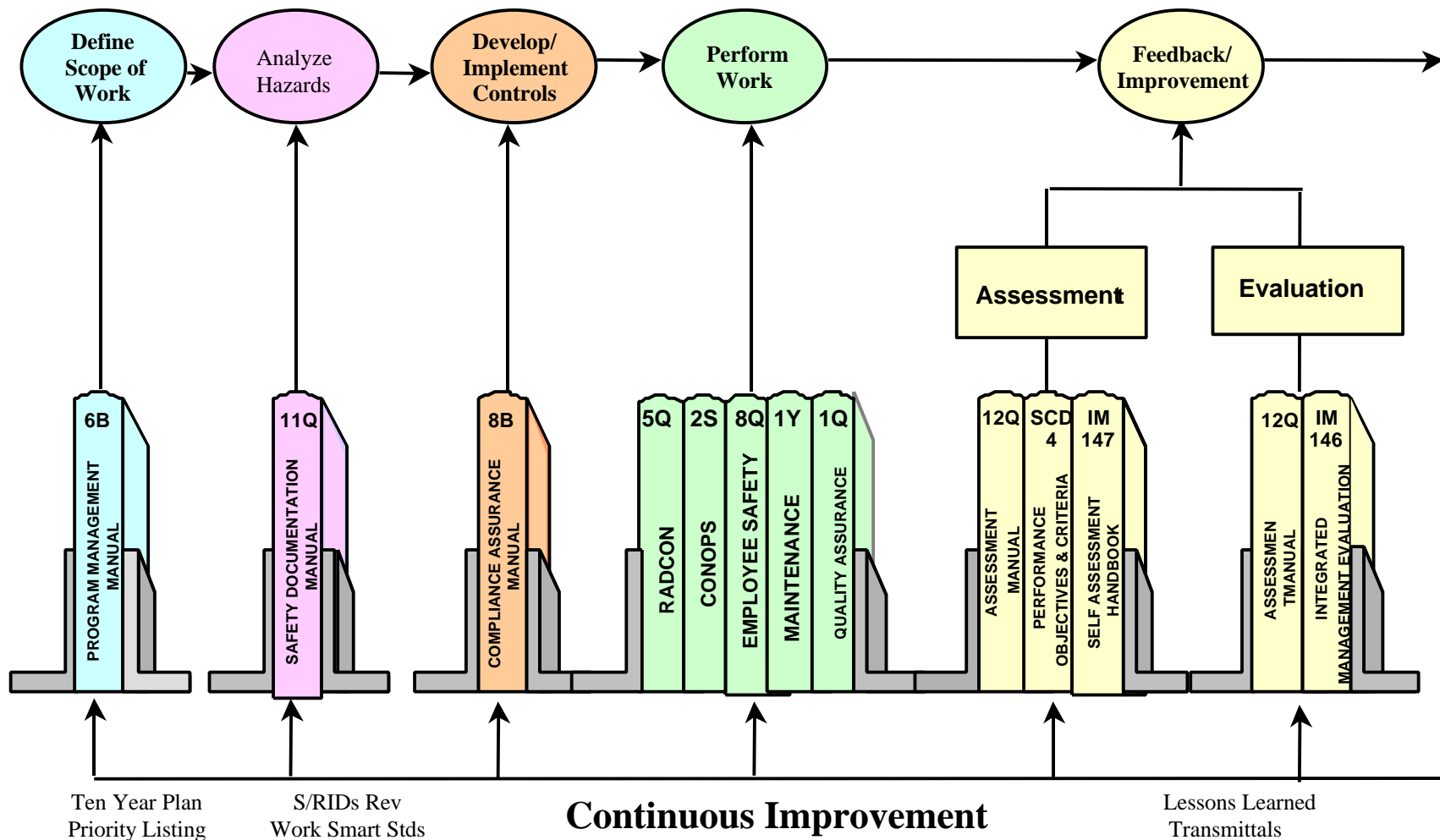
- Identify and Analyze Hazards
- Categorize Hazards

Develop/Implement Controls

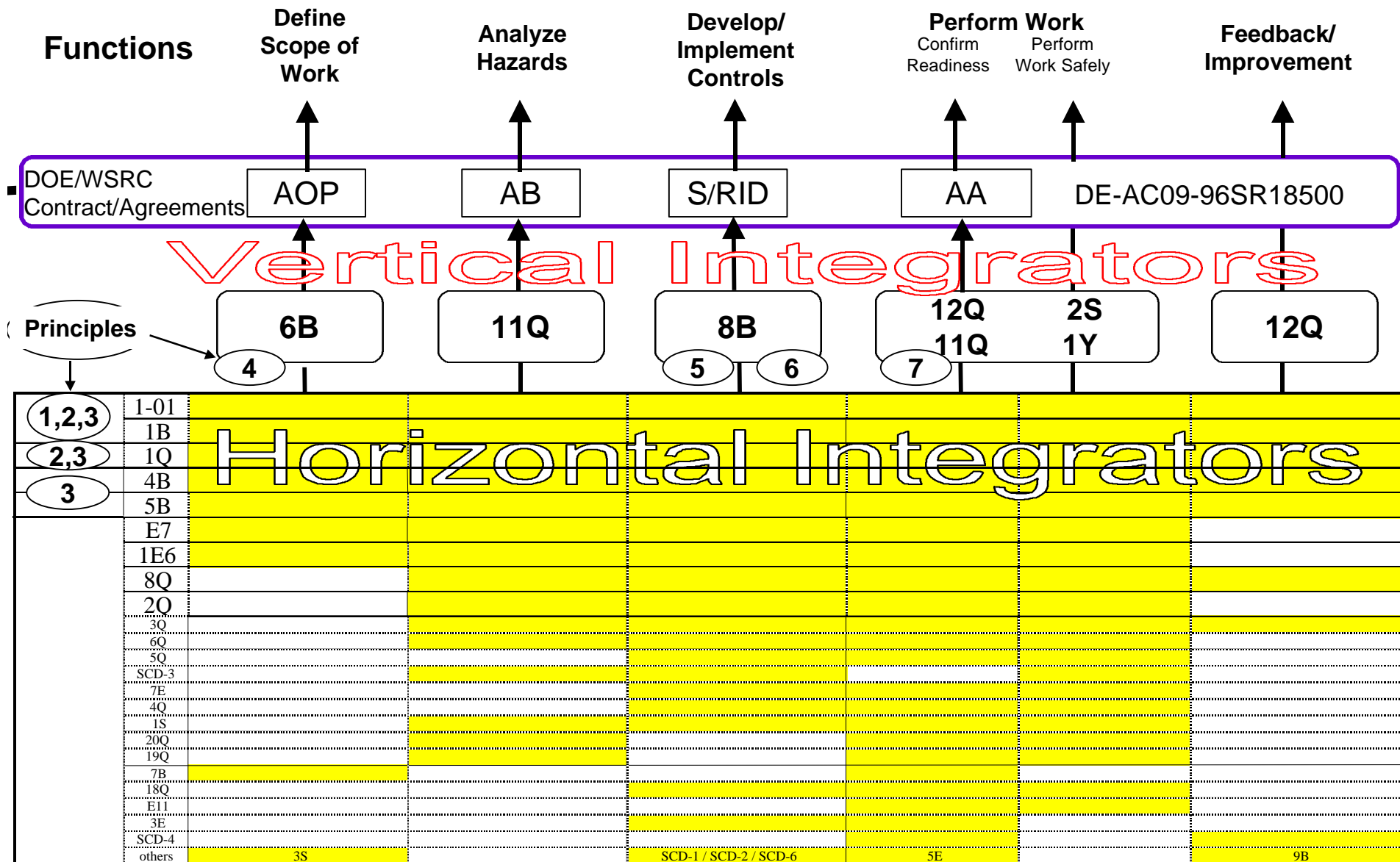
- Identify Standards & Requirements
- Identify Controls to Prevent/Mitigate Hazards
- Establish Safety Controls
- Implement Controls



SRS Integrated Safety Management System



ISMS MECHANISMS AT WSRC



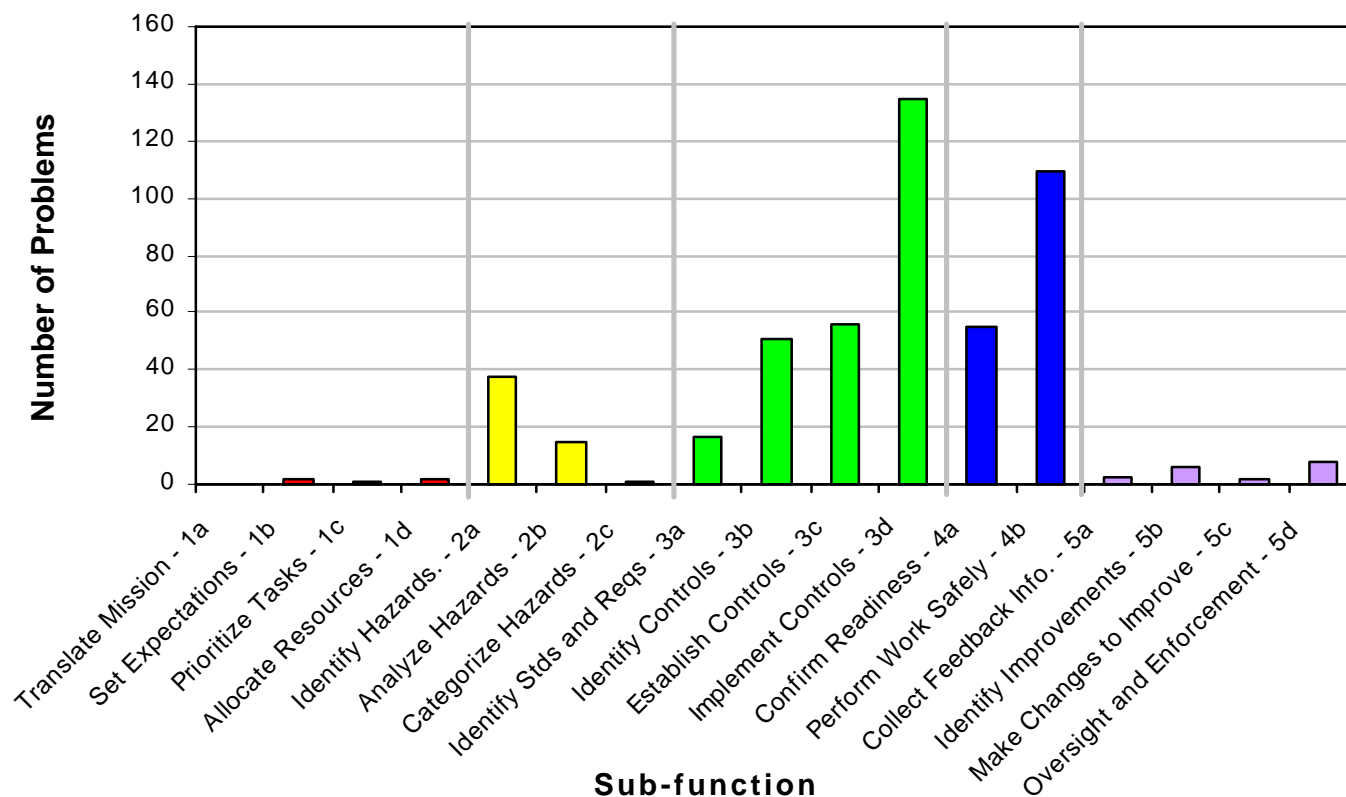


ISMS Implementation

Performance Data

| Function | Define Scope of Work | Analyze Hazards | Develop/Implement Controls | Perform Work | Feedback/Improvement |
|---------------|----------------------|-----------------|----------------------------|--------------|----------------------|
| % of Total | 1.0 | 10.8 | 51.7 | 32.7 | 3.8 |
| # of Problems | 5 | 54 | 259 | 164 | 19 |

| Sub-function | 1a | 1b | 1c | 1d | 2a | 2b | 2c | 3a | 3b | 3c | 3d | 4a | 4b | 5a | 5b | 5c | 5d |
|---------------|----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|-----|-----|-----|-----|
| % of Total | .0 | 0.4 | 0.2 | 0.4 | 7.6 | 3.0 | 0.2 | 3.4 | 10.2 | 11.2 | 26.9 | 11.0 | 21.7 | 0.6 | 1.2 | 0.4 | 1.6 |
| # of Problems | 0 | 2 | 1 | 2 | 38 | 15 | 1 | 17 | 51 | 56 | 135 | 55 | 109 | 3 | 6 | 2 | 8 |





ISMS Implementation

Just In Time Lessons Learned™ Proposal

Create a useful tool to provide timely lessons information to workers

- Must be flexible
- Must be simple and easy to use
- Must provide useful information
- Must have feedback mechanism

Benefits

- Involves workers in Integrated Safety Management (ISM)
- Allows positive and negative lessons learned to be captured and used repeatedly
- Reduces risks of recurring events
- Highlights safety as #1 priority
- Allows worker feedback for improvement next time
- Provides closed loop communication between worker and work process

What information will be included?

- Brief description of event or activity
- Lessons Learned from event or activity
- General precautions that need to be emphasized
- Worker feedback (before and after activity completed)
- Anything else that you believe would be useful



ISMS Implementation

Just In Time Lessons Learned TM Proposal (cont'd)

How will it be made available and used?

- Computer database developed based on work category and activity
- Work planners review database for lessons learned based on work activity
- Database will be generated based on work activities
- Include information in work package
- Work planners/workers review information and use in job as necessary
- Feedback provided to keep information current and applicable

What's the next step?

- Approval and support from Site Maintenance Managers Council (SMMC) to develop JITLLTM database
- SMMC provide list of work activities
- Lessons learned group develops JITLLTM based on SMMC input from “strawman” JITLLTM attached



ISMS Implementation **Just In Time Lessons Learned™**

Category: **DRUM HANDLING**

Activity: **Opening Waste Drums**

On August 25, 1998, at the Savannah River Hazardous Waste Storage Facility, a waste operator was exposed to chemical vapors and residue when internal pressure blew the lid from an 85-gallon overpack drum containing 1,1,1 trichloroethane and its decomposition products. He immediately exited the facility to flush his eyes at an eyewash station. The operator also complained of nausea and a burning sensation in his lungs and was transported to a local hospital for examination and treatment. Investigators determined that the operator was venting the container in preparation for lid removal and sampling by loosening the locking ring and slightly opening the lid to release headspace gases.

LESSONS LEARNED

- Pre-job hazard analysis should address the possibility of drum pressurization when opening drums.
- Job planners should identify appropriate personnel protective equipment based on the pre-job hazard analysis.
- Lessons learned and corrective actions from similar work should be reviewed and discussed during the pre-job briefing.

GENERAL PRECAUTIONS

- Personnel protective equipment should be in good condition prior to use.
- The accessibility of the emergency eyewash/showers for the job should be reviewed before starting work.

WORKER FEEDBACK

Are there any additions to the Lessons Learned or the General Precautions that need to be included?



LESSONS LEARNED INFORMATION SYSTEM

ISMS Implementation Reports Found Based on Search Criteria

Summary / JITLL™

| Report Number | Title | Date |
|---------------|---------------------|---------|
| JIT-99001 | Opening waste Drums | 2/17/99 |

Related Lessons Learned Reports (Linked through keywords, bin functions)

| Report Number | Title | Date |
|-----------------|--|----------|
| ESH PEQ-99-025 | Operating Experience Weekly Summary 99-004 | 2/1/99 |
| ESH-PES-98-0231 | LL Newsletter | 11/13/98 |
| ESH-PES98-0214 | LL Special Information Notice SIN 98-09 | 10/26/98 |
| | | |

Related SIRIM (Site ORPS) Reports (Linked through keywords, bin functions)

| Report Number | Title | Date |
|------------------|--|----------|
| FBLINE-1998-0031 | Nuclear Criticality Safety Step Violation (U) | 12/10/98 |
| CMD-1998-0014 | Suspect Part: Lifting Fixture Suspect Fastener | 12/16/98 |



ISMS Implementation

LESSONS LEARNED SEARCH PAGE

LL Report #:

ISMS Function

ISMS Sub-Function

Date Interval From:

to

Keyword Search:

OR

OR

Text Search:

OR

OR

Keywords

| | |
|----------------|--|
| Calculation | |
| Carbon Dioxide | |
| Circulation | |
| Chemical | |

ORPS Keywords

| | |
|------------------------|--|
| 06d exposure | |
| 06e airborne radiation | |
| 07 electrical | |
| 07a Batt/Batt Charger | |

Search Options

☐

Just in Time Lessons Learned™

☐

All Lessons Learned Documents

☐

SIRIM / ORPS

FIND

RESET